CLAIMS

What is claimed is:

1.   A method for processing an image, comprising the steps of:

comparing a first image intensity associated with a subject image portion with a second image intensity associated with an adjacent image portion;

determining an image intensity difference between the first image intensity and the second image intensity;

classifying the subject image portion as a candidate edge portion in response to a determination that the first image intensity is less than the second image intensity and a determination that the image intensity difference is greater than a predetermined threshold image intensity difference;

determining whether the candidate edge portion is a true edge portion; and

associating the subject image portion with a third image intensity, wherein the third image intensity is less than the first image intensity.

2.   The method of Claim 1, wherein the step of determining whether the candidate edge portion is a true edge portion, comprises the step of determining whether the candidate edge portion is adjacent to at least one second candidate edge portion.

3.   The method of Claim 2, wherein the step of determining whether the candidate edge portion is a true edge portion, further comprises the step of determining whether the candidate edge portion is adjacent to the second candidate edge portion and to a third candidate edge portion.

4.   The method of Claim 4, wherein the candidate edge portion, the second candidate edge portion and the third candidate edge portion form a line.

5.   The method of Claim 1, wherein the image is a digitized image.

6.   The method of Claim 5, wherein the subject image portion is a pixel.

7.   The method of Claim 5, wherein the adjacent image portion is a pixel.

8.   The method of Claim 5, wherein the image is a frame of a video stream.

25

9.   The method of Claim 8, wherein the image intensity is measured in luminance.

10.   The method of Claim 8, wherein the image intensity is measured in luminance and chrominance.

11.   The method of Claim 1, wherein the image is an image-type selected from the group consisting of:

animation;

computerized banners;

real-time streaming video;

stored video; and

gaming graphics.

12.   A system for enhancing a digitized image, comprising:

a decoder operative to receive an encoded digitized image and to expand the encoded digitized image to generate a decoded digitized image;

a post-processing unit operative to filter the decoded digitized image to process an image flaw;

an edge enhancer operative to detect an edge in the decoded digitized image and to enhance the edge in the decoded digitized image.

13.   The system of Claim 12, wherein the edge is a portion of the decoded digitized image separating a first image portion of substantially uniform image intensity from a second image portion of substantially uniform image intensity.

14.   The system of Claim 12, wherein the edge is a line in the decoded digitized image.

15.   The system of Claim 12, wherein the edge enhancer is further operative to detect the edge by comparing a subject portion of the decoded digitized image with a first adjacent portion of the decoded digitized image and with a second portion of the decoded digitized image and determining that the subject portion is associated with a lower image intensity level than a first image intensity associated with the first adjacent portion of the decoded digitized image and a second image intensity associated with the second adjacent portion of the decoded digitized image.

16.   The system of Claim 12, wherein the post-processor removes the image flaw from the decoded digitized image, in response to a determination that an image intensity of a pixel associated with the image flaw does not differ from at least one surrounding pixel by more than a threshold value.

17.   The system of Claim 12, wherein the post-processor adjusts the image flaw in the decoded digitized image, by modifying an image intensity of a pixel associated with the image flaw to correspond to a median image intensity value of at least one surrounding pixel.

18.   A method for detecting and enhancing an edge in a decoded digitized image, comprising the steps of:

determining a first image intensity associated with a first pixel in the decoded digitized image;

determining a second image intensity associated with a second pixel in the decoded digitized image;

determining a third image intensity associated with a third pixel in the decoded digitized image;

classifying the first pixel as a first candidate edge pixel in response to a determination that the first image intensity is less than the second image intensity and is less than the third image intensity;

determining whether the first pixel is adjacent to a second candidate edge pixel;

determining whether the second pixel is adjacent to a third candidate edge pixel;

classifying the first pixel as a true edge pixel in response to a determination that the first pixel is adjacent to the second candidate edge pixel and the second candidate edge pixel is adjacent to the third candidate edge pixel;

associating a fourth image intensity with the first pixel, the fourth image intensity being lower than the first image intensity.

19.   The method of Claim 18, further comprising the steps of:

associating a fifth image intensity with the second pixel, the fifth image intensity being higher than the second image intensity; and

5   associating a sixth image intensity with the third pixel, the sixth image
intensity being higher than the third image intensity.

20.   The method of Claim 18, further comprising the steps of:

determining a background color associated with the first pixel;

determining a quality level of the digitized image; and

10   selecting the fourth image intensity based on the background color and
the quality level.